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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/035,612	03/05/1998	KEIJI YUZAWA	SONYJP-3.0-0	5017

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EXAMINER	
BROWN, RUEBEN M	
ART UNIT	**PAPER NUMBER**
2611	

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/035,612	Yuzawa
Examiner	**Art Unit**
Reuben Brown	2611

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 29, 2002*.

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *3, 4, 7-16, 18-24, and 26* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *3, 4, 7-16, 18-24, and 26* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/29/2002 has been entered. An Office Action on the merits follows.

Response to Arguments

2. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection. MacInnis clearly teaches transmitting an operating system to subscribers, using a wireless transmission network, (col. 7, lines 40-50 & col. 8, lines 45-50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-16, 18-24, 26, 3-4 & 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacInnis, (U.S. Pat # 5,951,639), in view of Russo (U.S. pat # 5,765,113).

Considering claims 9 & 19, the amended claimed data reception device and method designed to receive wirelessly transmitted digital signals comprising an operating system software detecting means for detecting operating system software in an ordinary receiving mode wherein the operating system software is executed to control the data reception device, reads on MacInnis which discloses that operating system software may be wirelessly transmitted from a transmitter to a user's terminal device, (Abstract, Fig. 4; col. 2, lines 18-25; col. 7, lines 39-40).

In MacInnis the downloaded operating system software executes control over the data reception device, as is the case of an operating system with any corresponding device. As for the claimed feature of wirelessly transmitting the operating system, MacInnis discloses that the

modules, including operating system, may be transmitted over a satellite transmission network or RF means, (col. 8, lines 45-50) which reads on the recited limitation.

However, MacInnis does not discuss the claimed subject matter relating to signal quality detection. Nevertheless, at the time the invention was made, one of ordinary skill in the art would have been motivated to modify MacInnis to include signal quality detection means for the well known advantage of ensuring that the users receive at least a certain minimum of reception quality. Furthermore, at the time the invention was made it was well established in the art of quality control of data reception to apply at least one of several well known techniques to maintain signal quality such as switching to a different channel, when the noise or error rate exceeds a certain threshold on the given channel.

For instance, Russo teaches that an RF transceiver includes a capability to apply corrective action such as, at least delay communication with the transmitter, i.e stop receiving data when the signal quality is below a certain threshold, see Abstract & col. 2, lines 32-36. This feature reads on the claimed recitation of only storing operating system software when the average signal quality is better than a certain threshold, since once the receiver does not have communication with the transmitter, it is not receiving data and thus is not storing data. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify

MacInnis, to include a signal quality detection and correction algorithm, for the desirable improvement maintaining a least certain level of reception quality as taught by Russo.

As for the additional claimed feature of the detecting means detection quality levels in a predetermined period of time, it would have been obvious for one ordinary skill in the art to extend the detection period to any particular length, such that the longer the period, the higher the level of accuracy that the system will have since the data will receive more sampling or testing. Regarding the claimed feature of calculating an average quality level, Russo calculates or measures an average BER, which is referred to as the actual BER, see col. 4, lines 35-39. This actual BER is compared to an expected BER in order to determine whether the corrective action discussed above will be taken.

Considering claims 10 & 20, the operating system software discussed in MacInnis are identified by a PID identifier, such that the receiving device uses it in order to extract the particular operating system software from the data stream, since MPEG technology is used, which as a standard provides packet identifiers, PID, (col. 4, lines 24-28).

Considering claims 11 & 21, MacInnis teaches including at least the version or manufacturing information of a transmitted/downloaded software application, i.e. operating system, col. 5, lines 1-61.

Considering claims 12 & 22, the detecting means in Russo is used to control whether the receiver will delay/cutoff communication with the transmitter.

Considering claims 13-14, MacInnis teaches the use of CPU flash memory, which reads on non-volatile memory, (col. 4, lines 48-52).

Considering claims 15 & 23, MacInnis does not discuss temporally storing the downloaded operating system before writing to non-volatile memory. Official Notice is taken that buffering technology was well known in the art at the time the invention was made. It would have been obvious for one ordinary skill in the art at the time the invention was made, to use the well known receiver buffer technology in MacInnis, at least for the known benefit of checking the downloaded data for errors before storing in permanent memory.

Considering claims 16 & 24, MacInnis utilizes MPEG technology, see col. 4, lines 25-28 & col. 5, lines 14-18. Official Notice is taken that at the time the invention was made, MPEG-2 technology was well known in the art. It would have been obvious for one of ordinary skill in the art, to modify MacInnis to use MPEG-2 technology, at least for the well known additional improvements of that upgrade.

Considering claims 18 & 26, Russo is directed to detecting the BER.

Considering claims 3 & 7, although MacInnis and Russo do not discuss displaying the quality of reception on a GUI, it would have been obvious for one of ordinary skill in the art to utilize the well known GUI technology at least for the desirable benefit of informing the user, at least so that he may override the operation determined by the system.

Considering claims 4 & 8, MacInnis is directed to digital broadcast utilizing MPEG technology, which multiplexes digital TV, as well as the download modules, (col. 4, lines 24-40).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's claims.

A) Morris Teaches disconnecting an wireless connection, terminating transmission when an abnormal transmission environment is determined, (Abstract, lines 1-7 & col. 11, lines 17-32).

B) Bergins Teaches disconnecting from a cellular transmission, when the signal strength of the transmission is determined to be below a certain threshold, (col. 6, lines 32-60).

Any response to this action should be mailed to:

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Washington, D.C. 20231

or faxed to:

(703)872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on Monday thru Friday from 830am to 430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600